

Docket No. 53852US013

**DECLARATION, POWER OF ATTORNEY, AND PETITION**

I, a below named inventor, depose and say that: (1) my residence, citizenship, and mailing address are indicated below; (2) I have reviewed and understand the contents of my patent application, including the claims, as amended by any amendment specifically referred to herein, which is identified as U.S. Patent Application Serial No. 09/890,482, filed July 26, 2001; and PCT International Patent Application Serial No. WO99/39224 filed January 28, 1999, bearing Attorney Docket Number 53852WO010; (3) I believe that the other below named inventors and I are the original, first, and joint inventors or discoverers of the invention or discovery in

**INFRARED INTERFERENCE FILTER**

described and claimed therein and for which a patent is sought; and (4) I hereby acknowledge my duty to disclose to the Patent and Trademark Office all information known to me to be material to the patentability as defined in Title 37, Code of Federal Regulations, §1.56\*, and that no application for patent or inventor's certificate on this invention or discovery has been filed by us or our legal representatives or assigns in any country foreign to the United States of America except Japan Application No. 15626/98 filed January 28, 1998 upon which we herby claim foreign priority benefits under Title 35, United States Code Section 119.

I hereby appoint Gregory D. Allen (Reg. No. 35,048), Alan Ball (Reg. No. 42,286), Scott A. Bardell (Reg. No. 39,594), Carolyn A. Bates (Reg. No. 27,853), Bruce Black (Reg. No. 41,622), Colene E. H. Blank (Reg. No. 41,056), Jennie G. Boeder (Reg. No. 28,952), William J. Bond (Reg. No. 32,400), Arthur J. Brady (Reg. No. 42,356), Stephen W. Buckingham (Reg. No. 30,035), John A. Burtis (Reg. No. 39,924), Melissa E. Buss (Reg. No. 47,465), Gerald F. Chernivec (Reg. No. 26,537), James D. Christoff (Reg. No. 31,492), Philip Y. Dahl (Reg. No. 36,115), Janice L. Dowdall (Reg. No. 31,201), Lisa M. Fagan (Reg. No. 40,601), Carolyn A. Fischer (Reg. No. 39,091), Yen T. Florczak (Reg. No. 45,163), Darla P. Fonseca (Reg. No. 31,783), Melanie G. Gover (Reg. No. 41,793), Christopher D. Gram, (Reg. No. 43,643), Gary L. Griswold (Reg. No. 25,396), Doreen S. L. Gwin (Reg. No. 35,580), Michael A. Hakamaki (Reg. No. 40,011), Karl G. Hanson (Reg. No. 32,900), Dean M. Harts (Reg. No. 47,634), Néstor F. Ho (Reg. No. 39,460), Rudolph P. Hofmann, Jr. (Reg. No. 38,187), Robert W. Hoke (Reg. No. 29,226), MarySusan Howard (Reg. No. 38,729), Stephen C. Jensen (Reg. No. 35,207), Robert H. Jordan (Reg. No. 31,973), Harold C. Knecht III (Reg. No. 35,576), Kent S. Kokko (Reg. No. 33,931), Andrew J. Leon (Reg. No. 46,869), Douglas B. Little (Reg. No. 28,439), Eloise J. Maki (Reg. No. 33,418), Matthew B. McNutt (Reg. No. 39,766), Michelle M. Michel (Reg. No. 33,968), William D. Miller (Reg. No. 37,988), Peter L. Olson (Reg. No. 35,308), Daniel R. Pastirik (Reg. No. 33,025), David B. Patchett (Reg. No. 39,326), Robert J. Pechman (Reg. No. 45,002), Carolyn V. Peters (Reg. No. 33,271), Scott R. Pribnow (Reg. No. 43,869), Ted K. Ringsred (Reg. No. 35,658), Steven E. Skolnick (Reg. No. 33,789), Robert W. Sprague (Reg. No. 30,497), Brian E. Szymanski (Reg. No. 39,523), James J. Trussell (Reg. No. 37,251), Lucy C. Weiss (Reg. No. 32,834), Bradford B. Wright (Reg. No. 34,459), and Kimberly S. Zillig (Reg. No. 46,346) my attorneys and/or agents with full powers (including the powers of appointment, substitution, and revocation) to prosecute this application and any division, continuation, continuation-in-part, reexamination, or reissue thereof, and to transact all business in the Patent and Trademark Office connected therewith; the mailing address and the telephone number of the above-mentioned attorneys and/or agents are

Attention: Bruce E. Black  
Office of Intellectual Property Counsel  
3M Innovative Properties Company  
P.O. Box 33427  
St. Paul, Minnesota 55133-3427  
Telephone No. 651-736-3366

The undersigned petitioner declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

\*Title 37, Code of Federal Regulations, §1.56 is attached.

Docket No. 53852US013

Wherefore, I pray for grant of Letters Patent for the invention or discovery described and claimed in the aforementioned specification and we hereby subscribe our names to the foregoing specification and claims, declaration, power of attorney, and this petition, on the day set forth below.

1 - 00 Andrew J. Oudekirk 1/8/02 Date  
Residence: Woodbury, Minnesota, U.S.A. MN.  
Citizenship: United States of America  
Post Office P.O. Box 33427  
Address: St. Paul, Minnesota 55133-3427

2 - 00 Takashi Harada 12/10 '01 Date  
Residence: Machida, Tokyo, JAPAN JPX  
Citizenship: Japan  
Post Office P.O. Box 33427  
Address: St. Paul, Minnesota 55133-3427

3 - 00 Akira Yoda 12/10 '01 Date  
Residence: Machida-city, Tokyo, JAPAN JPX  
Citizenship: Japan  
Post Office P.O. Box 33427  
Address: St. Paul, Minnesota 55133-3427

4 - 00 Tatsuya Nakamura 12/10 '01 Date  
Residence: Sagami-hara-city, Kanagawa, JAPAN JPX  
Citizenship: Japan  
Post Office P.O. Box 33427  
Address: St. Paul, Minnesota 55133-3427

\* 5 - 00 Michael F. Weber 1/13/02 Date  
Residence: Shoreview, Minnesota, U.S.A. MN.  
Citizenship: United States of America  
Post Office P.O. Box 33427  
Address: St. Paul, Minnesota 55133-3427

\* 6 - 00 John A. Wheatley 1-2-02 Date  
Residence: Lake Elmo, Minnesota, U.S.A. MN.  
Citizenship: United States of America  
Post Office P.O. Box 33427  
Address: St. Paul, Minnesota 55133-3427

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\* 7-00 Roger J. Szmarsky 12/31/01  
Date  
Residence: Woodbury, Minnesota, U.S.A. MN.  
Citizenship: United States of America  
Post Office: P.O. Box 33427  
Address: St. Paul, Minnesota 55133-3427

8-01 Makoto Ishikawa, Deceased  
Citizenship: Japan

9-11 Yoko Ishikawa  
Heir of Makoto Ishikawa, Deceased  
Residence: Yamato-city, Kanagawa, JAPAN JPX  
Citizenship: Japan  
Date: December 2, 2001

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**§1.56 Duty to disclose information material to patentability.**

(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is cancelled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§ 1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

- (1) prior art cited in search reports of a foreign patent office in a counterpart application, and
- (2) the closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.

(b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and

- (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
- (2) It refutes, or is inconsistent with, a position the applicant takes in:
  - (i) Opposing an argument of unpatentability relied on by the Office, or
  - (ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

(c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:

- (1) Each inventor named in the application;
- (2) Each attorney or agent who prepares or prosecutes the application; and
- (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.

(d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.

(2の1)

全部事項証明

本 籍 氏 名	兵庫県西宮市上鳴尾町30番地 石川 誠
戸籍事項 戸籍改製	【改製日】平成12年1月1日 【改製事由】平成6年法務省令第51号附則第2条第1項による改製
戸籍に記録されている者  除 籍	【名】 誠 【生年月日】昭和23年2月13日 【父】石川志郎 【母】石川徳子 【続柄】長男
身分事項 出 生	【出生日】昭和23年2月13日 【出生地】石川県金沢市 【届出日】昭和23年2月24日 【届出人】父 【送付を受けた日】昭和23年3月6日 【受理者】石川県金沢市長
婚 姻	【婚姻日】昭和48年9月8日 【配偶者氏名】佐藤洋子 【送付を受けた日】昭和48年10月8日 【受理者】東京都八王子市長 【従前戸籍】新潟県長岡市曲新町三丁目425番地 石川志郎
死 亡	【死亡日】平成12年1月16日 【死亡時分】午前3時46分 【死亡地】神奈川県大和市 【届出日】平成12年1月17日 【届出人】親族 石川洋子 【送付を受けた日】平成12年1月20日 【受理者】神奈川県大和市長
戸籍に記録されている者	【名】 洋子 【生年月日】昭和25年2月14日 【父】佐藤叶 【母】佐藤英子 【続柄】二女
身分事項 出 生	【出生日】昭和25年2月14日 【出生地】福島県伊達郡久保村 【届出日】昭和25年2月20日

発行番号 178749

以下次頁

(2の2)

全部事項証明

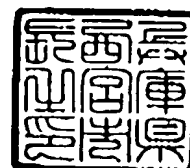
<p>婚姻</p> <p>配偶者の死亡</p>	<p>【届出人】父 【送付を受けた日】昭和25年2月26日 【受理者】福島県伊達郡大久保村長</p> <p>【婚姻日】昭和48年9月8日 【配偶者氏名】石川誠 【送付を受けた日】昭和48年10月8日 【受理者】東京都八王子市長 【従前戸籍】東京都八王子市寺田町156番地2 佐藤叶 【配偶者の死亡日】平成12年1月16日</p>
<p>戸籍に記録されている者</p> <p>身分事項 出生</p>	<p>【名】佐知子</p> <p>【生年月日】昭和50年3月23日 【父】石川誠 【母】石川洋子 【続柄】長女</p> <p>【出生日】昭和50年3月23日 【出生地】東京都八王子市 【届出口】昭和50年4月2日 【届出人】父 【送付を受けた日】昭和50年4月8日 【受理者】東京都八王子市長</p>
<p>戸籍に記録されている者</p> <p>除 籍</p>	<p>【名】美奈子</p> <p>【生年月日】昭和52年2月24日 【父】石川誠 【母】石川洋子 【続柄】二女</p>
<p>身分事項 出生</p> <p>婚姻</p>	<p>【出生日】昭和52年2月24日 【出生地】東京都八王子市 【届出口】昭和52年3月4日 【届出人】父 【送付を受けた日】昭和52年3月10日 【受理者】東京都八王子市長</p> <p>【婚姻日】平成13年8月26日 【配偶者氏名】荒谷篤 【送付を受けた日】平成13年9月3日 【受理者】東京都江東区長 【新本籍】東京都江東区新大橋三丁目15番地 【称する氏】夫の氏</p>

発行番号 178749

これは、戸籍に記録されている事項の全部を証明した書面である。

平成13年9月26日

兵庫県西宮市長 山田 知



この公印は紅色です。

この用紙には西宮市の市旗のマークがすかしとして入っています。

(1の1)

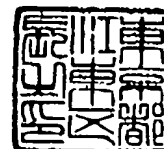
## 全部事項証明

本籍氏名	東京都江東区新大橋三丁目15番地 荒谷 篤
戸籍事項 戸籍編製	【編製日】平成13年8月26日
戸籍に記録されている者	【名】 篤 【生年月日】昭和51年7月30日 【配偶者区分】 夫 【父】 荒谷英明 【母】 荒谷幸子 【続柄】 長男
身分事項 出生	【出生日】昭和51年7月30日 【出生地】東京都町田市 【届出日】昭和51年8月6日 【届出人】 父
婚姻	【婚姻日】平成13年8月26日 【配偶者氏名】 石川美奈子 【従前戸籍】 東京都江東区新大橋三丁目15番地 荒谷英明
戸籍に記録されている者	【名】 美奈子 【生年月日】昭和52年2月24日 【配偶者区分】 妻 【父】 石川誠 【母】 石川洋子 【続柄】 二女
身分事項 出生	【出生日】昭和52年2月24日 【出生地】東京都八王子市 【届出日】昭和52年3月4日 【届出人】 父 【送付を受けた日】昭和52年3月10日 【受理者】 東京都八王子市長
婚姻	【婚姻日】平成13年8月26日 【配偶者氏名】 荒谷篤 【従前戸籍】 兵庫県西宮市上鳴尾町30番地 石川誠
	以下余白

これは、戸籍に記録されている事項の全部を証明した書面である。

平成13年8月30日

東京都江東区長 室 橋 昭



## Translation of the Family Register

Address of Origin	30, Kaminaruo-cho, Nishinomiya-shi, Hyogo
Name	Makoto Ishikawa
Revision of Register	Date of Revision: January 1, 2000 Reason for Revision: Revision under the Supplementary Provision Article 2 Item 1 of Heisei 3 Ordinance No. 51 of Justice Ministry
Person who is recorded in the Family Register	Name: <b>Makoto</b> Date of Birth: February 13, 1948 Name of Father: Shiro Ishikawa Name of Mother: Tokuko Ishikawa Family relationship: First son
Removed from Family Register	
Birth	Date of Birth: February 13, 1948 Place of Birth: Kanazawa-shi, Ishikawa Date of submission of a notice of birth: February 24, 1948 Person who submitted a notice of birth: His farther Date of receipt of a notice of birth: March 6, 1948 Person who accepted a notice of birth: The Mayor of Kanazawa-shi, Ishikawa
Marriage	Date of marriage: September 8, 1973 Name of his wife: Yoko Sato Date of receipt of a notice of marriage: October 8, 1973 Person who accepted a notice of marriage: The Mayor of Hachioji-shi, Tokyo Former register: Shiro Ishikawa of 425, Magariarai-machi 3-choem, Nagaoka-shi, Niigata
Death	Date of death: January 16, 2000 Time of death: 3:46 a.m. Place of death: Yamato-shi, Kanagawa Date of submission of a notice of death: January 17, 2000 Person who submitted a notice of death: Yoko Ishikawa, his wife Date of receipt of a notice of death: January 20, 2000 Person who accepted a notice of death: The Mayor of Yamato-shi, Kanagawa



Person who is recorded in the Family Register	Name: <b>Yoko</b> Date of Birth: February 14, 1950 Name of Father: Yasu Sato Name of Mother: Eiko Sato Family relationship: Second daughter
Birth	Date of Birth: February 14, 1950 Place of Birth: Ohkubo-mura, Date-gun, Fukushima Date of submission of a notice of birth: February 20, 1950 Person who submitted a notice of birth: Her farther Date of receipt of a notice of birth: February 26, 1950 Person who accepted a notice of birth: The Village Chief of Okubo-mura, Date-gun, Fukushima
Marriage	Date of marriage: September 8, 1973 Name of his husband: Makoto Ishikawa Date of Receipt of a notice of marriage: October 8, 1973 Person who accepted a notice of marriage: The Mayor of Hachioji-shi, Tokyo Former register: Yasu Sato of 156-2, Terada-cho, Hachioji-shi, Tokyo
Death of her husband	Date of death of her husband: January 16, 2000
Person who is recorded in the Family Register	Name: <b>Sachiko</b> Date of Birth: March 23, 1975 Name of Father: Makoto Ishikawa Name of Mother: Yoko Ishikawa Family relationship: First daughter
Birth	Date of Birth: March 23, 1975 Place of Birth: Hachioji-shi, Tokyo Date of submission of a notice of birth: April 2, 1975 Person who submitted a notice of birth: Her farther Date of Receipt of a notice of birth: April 8, 1975 Person who accepted a notice of birth: The Mayor of Hachioji-shi, Tokyo

Person who is recorded in the Family Register	Name: <b>Minako</b> Date of Birth: February 24, 1977 Name of Father: Makoto Ishikawa Name of Mother: Yoko Ishikawa Family relationship: Second daughter
Removed from Family Register	
Birth	Date of Birth: February 24, 1977 Place of Birth: Hachioji-shi, Tokyo Date of submission of a notice of birth: March 4, 1977 Person who submitted a notice of birth: Her farther Date of Receipt of a notice of birth: March 10, 1977 Person who accepted a notice of birth: The Mayor of Hachioji-shi, Tokyo
Marriage	Date of marriage: August 26, 2001 Name of his wife: Atsushi Aratani Date of receipt of a notice of marriage: September 3, 2001 Person who accepted a notice of marriage: The Headman of Koto Ward, Tokyo New register: 15, Shin-ohashi 3-chome, Koto-ku, Tokyo Indication of Family name: Family name of her husband

Issue No. 178749

This is to certify that this document contains the description of  
all effective matters which are recorded on the Family Register.

September 26, 2001

The Mayor of Nishinomiya-shi

Satoru Yamada

seal

## Translation of the Family Register

Address of Origin	15, Shin-ohashi 3-chome, Kotoh-ku, Tokyo
Name	Atsushi Aratani
Production of Register	Date of Reproduce: August 26, 2001
Person who is recorded in the Family Register	<p>Name: <b>Atsushi</b>  Date of Birth: July 30, 1976  Name of Father: Hideaki Aratani  Name of Mother: Sachiko Aratani  Family relationship: First son  Classification of Spouse:  Husband</p>
Birth	<p>Date of Birth: July 30, 1976  Place of Birth: Machida-shi, Tokyo  Date of submission of a notice of birth:  August 6, 1976  Person who submitted a notice of birth:  His farther</p>
Marriage	<p>Date of marriage: August 26, 2001  Name of his wife: Minako Ishikawa  Former register:  Hideaki Aratani of 15, Shin-ohashi 3-chome,  Koto-ku, Tokyo</p>
Person who is recorded in the Family Register	<p>Name: <b>Minako</b>  Date of Birth: February 24, 1977  Name of Father: Makoto Ishikawa  Name of Mother: Yoko Ishikawa  Family relationship: Second daughter  Classification of Spouse:  Wife</p>
Birth	<p>Date of Birth: February 24, 1977  Place of Birth: Hachiohji-shi, Tokyo  Date of submission of a notice of birth:  March 4, 1977  Person who submitted a notice of birth:  Her farther  Date of receipt of a notice of birth:  March 10, 1977  Person who accepted a notice of birth:  The Mayor of Hachiohji-shi,</p>

Marriage	Date of marriage: August 26, 2001 Name of her Husband: Atsushi Aratani Former register: Makoto Ishikawa of 30, Kaminaruo-cho, nishinomiya-shi, Hyogo
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This is to certify that this document contains the description of all effective matters which are recorded on the Family Register.

August 30, 2001

The Headman of Koto Word, Tokyo

Akira Murohashi

scal

## DECLARATION

I, the undersigned, Kenichi Katoh, residing at c/o Sumitomo 3M Limited, 33-1, Tamagawadai 2-chome, Setagaya-ku, Tokyo, Japan hereby certify that I am the translator of the attached documents and certify that the following is a true translation to the best of my knowledge and belief.

This 3 day of December, 2001



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Kenichi Katoh

## CHAPTER II SUCCESSORS

(Capacity of unborn child in respect of succession)

Article 886. A child en ventre sa mere shall, in respect of succession, be deemed to have been already born.

2. The provisions of the preceding paragraph shall not apply in cases where the child en ventre sa mere is born dead.

(Children, succession by representation)

Article 887. Children of a person to be succeeded to become successors.

2. If a child of a person to be succeeded to had died previous to the opening of the succession, or lost the right of succession due to falling under the provision of Article 891 or due to disinheritance, the children of such person become successors by virtue of succession by preresentation. Provided that this shall not apply to those who are not lineal descendants of the person to be succeeded to.

3. The provision of the preceding paragraph shall apply mutatis mutandis in the case where a successor by representation had died previous to the opening of the succession, or lost the right of succession by representation due to falling under the provision of Article 891 or due to disinheritance.

Article 888. Deleted

(Lineal ascendants, brothers and sisters)

Article 889. In cases where there exists no person who is to become successor in accordance with the provision of Article 887, the persons mentioned below become successors in the other as follows:

(I) Lineal ascendants; provided that as between persons standing in different degree of relationship, those nearer in degree are preferred;

(II) Brothers and sisters

2. The provisions of Article 887 paragraph 2 shall apply *mutatis mutandis* in the case mentioned in item (II) of the preceding paragraph.

(Spouse)

Article 890. The spouse of a person succeeded to become in every case, a successor. In this case, if there is any person who is to become a successor in accordance with the provisions of the preceding three Articles, the order of succession of the spouse shall be in the same rank with such person.







## DECLARATION

I, the undersigned, Kenichi Katoh, residing at c/o Sumitomo 3M Limited, 33-1, Tamagawadai 2-chome, Setagaya-ku, Tokyo, Japan hereby certify that I am the translator of the attached documents and certify that the following is a true translation to the best of my knowledge and beleif.

This 3 day of December, 2001

Kenichi Katoh  
Kenichi Katoh

## DECLARATION

I, the undersigned, Kenichi Katoh, residing at c/o Sumitomo 3M Limited, 33-1, Tamagawadai 2-chome, Setagaya-ku, Tokyo, Japan hereby declare that Under Articles 886-890 of the Japanese Civil Code, Yoko Ishikawa is the legal heir of the deceased inventor, Mr. Makoto Ishikawa.

This 5 day of December, 2001



Kenichi Katoh

## DECLARATION

I, the undersigned, Yoko Ishikawa, of Tukimino Sky Heights 606, 14-3, Tsukimino 8-chome, Yamato-shi, Kanagawa, Japan, hereby declare that I am the Legal Heir of the deceased inventor of Makoto Ishikawa, who invented.

This 2 day of December, 2001

YOKO ISHIKAWA

Yoko Ishikawa  
Legal Heir of the deceased  
Inventor of Makoto Ishikawa